

A NEW SPECIES OF *EPIPOLOPS* H.S. FROM SOUTH AMERICA (HETEROPTERA: LYGAEOIDEA: GEOCORIDAE)

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Abstract.—*Epipolops rettenmeyeri* is described as a new species from Ecuador and Peru. A key to the known species of *Epipolops* H.S. is included. *E. meridionalis* Piran is reduced to a junior synonym of *E. frondosus* H.S. New country records are given for three species. The systematic position of the genus is summarized.

Key words: Epipolops, Lygaeoidea, Geocoridae, Neotropical.

The species of *Epipolops* H.S., with their eyes placed at the end of elongate divergent stalks and usually with large projections extending laterally from the sides of the pronotum, are certainly among the most bizarre of lygaeoid insects.

The systematic relationships of the genus have until recently been obscure. Stal (1868) placed the genus in the Geocorida, Ashlock (1957) in the Cyminae. Hamid (1975) stated they were not members of the Cyminae, but did not place them. Brailovsky (1990) placed them in the Bledionotinae and Slater & O'Donnell (1995) in the tribe Pamphantini within the Bledionotinae both without comment. Elsewhere (Slater, in press) I discuss their systematic position in detail, treating them as a separate tribe in the subfamily Pamphantinae of the Geocoridae (*sensu* Henry, 1997). The evidence for this will not be repeated here other than to say that the combination of the position of the abdominal spiracles and in particular the distinctive areolate punctures (synapomorphy) indicate a close relationship to the New World pamphantine lygaeoids.

Brailovsky (1990) gives a key to the known species with illustrations of the various shapes of the pronotum. The English key provided here is modified from that of Brailovsky.

All measurements are in millimeters.

Unfortunately nothing seems to be known of the biology of these peculiar insects. Collecting records suggest that they live on the foliage of plants. *E. oculuscancri* (DeGeer) was taken in Costa Rica on "*Psidium quajava*" and intercepted at Laredo, Texas on orchids from Mexico.

***Epipolops rettenmeyeri*, new species**

General coloration nearly uniformly pale yellow. Scutellum with a white, elevated, calloused, median stripe diverging anteriorly into a pair of widely separated "Y" shaped arms. Posterior margin of eye stalk with a narrow, elongate, brown stripe. Antennae pale testaceous. Apical two-thirds of fourth antennal segment dark red, strongly contrasting with pale proximal portion. Eyes bright red. Abdominal sternum with an irregular dark sublateral stripe, somewhat broken into spots anteriorly and

nearly reaching meson on genital capsule. Entire dorsal surface bearing elongate upright hairs. Head impunctate. Large areolate punctures present on pronotum, scutellum and on clavus. Those on clavus forming two complete and a partial third row.

Head with eyes at ends of elongate, divergent stalks. Length eye stalk 0.84. Width across base of head 0.60. Length head 0.64, width across eyes 1.66. Pronotum with two pairs of lateral projections, anterior pair spatulate with 7 or 8 elongate setigerous hairs arising from projection; posterior projection arising near posterior margin of pronotum at humeral angles, somewhat hatchet or scimitar shaped, curving anteriorly, outer margin toothed or crenulated. Length pronotum 1.04, width across humeri (excluding projections) 1.58. Length scutellum 0.64, width 0.82. Length claval commissure 0.60. Corium with broad lateral explanate flanges, margin of flange abruptly expanded at base but without a distinct tooth. Membrane considerably exceeding apex of abdomen. Midline distance apex clavus-apex corium 1.28. Midline distance apex corium-apex membrane 0.60. Maximum width across hemelytra 2.00. Metathoracic scent gland auricle narrowly elliptical; evaporative area covering essentially all of both meta- and mesopleuron. Fore femur only moderately incrassate, mutic. Labium extending between mesocoxae, first segment barely attaining base of head. Length labial segments I 0.56, II 0.46, III 0.46, IV 0.34. Antennae slender, first segment somewhat enlarged, elongate, extending beyond eye stalks for approximately half its length. Length antennal segments I 0.62, II 0.56, III 0.40, IV 0.54. Total body length 5.32.

Types. Holotype, ♂, ECUADOR, Prov. Napo, 00°24'S, 76°36'W 'Limoncocha' 280 m. 18.vi.1975, No. 777, Ruth Chadab (USNM). Paratype: PERU: 1 ♂, Satipo, 9.VIII.1941, T. Paprzycki, "(J. E. Lutz collection)" (In J. A. Slater collection).

Discussion. This species is most closely related to *E. lenkoi* Canter and *E. arboricola* Brailovsky in having strongly spatulate projections from the anterior pronotal lobe. It differs from *E. lenkoi* in having a rather hatchet or scimitar shaped projection from the humeral pronotal angles. In *E. lenkoi* this posterior projection is also rather spatulate and is far removed from the posterior angle of the pronotum. (See Canter, 1964 and Brailovsky, 1990). In addition *E. rettenmeyeri* has a very different configuration to the explanate flange of the corium. In *E. lenkoi* the flange at the level of the apex of the scutellum is strongly sinuate, whereas it is nearly straight in *E. rettenmeyeri*. The first antennal segment of *E. rettenmeyeri* is similar to that of *E. arboricola* and thus much longer than is that of *E. lenkoi*. Although possibly variable when a series becomes available the color marking also seems to be distinctive for both *E. lenkoi* and *E. arboricola* have a pair of prominent dark spots in the area of the calli and on the humeral angles that are absent in *E. rettenmeyeri*.

Etymology. Named for my colleague Dr. Carl Rettenmeyer in recognition of his important entomological work in tropical Ecuador and for introducing the collector of the holotype Dr. Ruth (Chadab) Crepet to the fauna of the type locality.

NEW COUNTRY RECORDS

Epilops oculuscancri (DeGeer) Guyana ("British Guiana").

Epilops acuminatus (Distant) Mexico (Sinaloa), Honduras.

Epilops frondosus H.S. Paraguay.



Fig. 1. *Epipolops rettenmeyeri* new species. Dorsal view.

KEY TO SPECIES OF EPIPOLOPS

1. Lateral pronotal margins lacking conspicuous projecting spines, spatulate lobes or setiferous lamellae *oculuscancri* (DeGeer)
- 1a. Lateral pronotal margins with at least one pair of projecting spines, lobes or lamellae 2
2. Anterior pronotal lobe lacking a conspicuous lateral projection . . . *acuminatus* (Distant)
- 2a. Both anterior and posterior pronotal lobes with conspicuous lateral projections 3
3. Lateral projections of both anterior and posterior pronotal lobes consisting of a single sharp, acute tipped, sometimes recurved spine 4
- 3a. Lateral pronotal projections of both anterior and posterior lobes with spatulate, crenulate or multi-pointed, setiferous plates; sometimes anterior projection backward curved and not spatulate 5
4. Antero-lateral margin of corium with a large, conspicuous, laterally projecting tooth *quadrispinus* Stal
- 4a. Antero-lateral margin of corium somewhat expanded but lacking a large conspicuous tooth *mucronatus* (Distant)
5. Anterior pronotal projections forming a series of serrate teeth, with an elongate seta projecting from each tooth. *frondosus* Herrich-Schaeffer
- 5a. Anterior pronotal projection either a single spatulate lobe or curved tooth 6
6. Lateral margin of corium with a conspicuous laterally directed spine near base *bellus* Brailovsky
- 6a. Lateral corial margin basally either evenly rounded or bluntly angulate but never with a conspicuous laterally directed spine 7
7. First antennal segment short, not extending anteriorly beyond pedunculate eyes; lateral projections from posterior pronotal lobe spatulate, set far forward of humeral pronotal angles *lenkoi* Canter
- 7a. First antennal segment relatively elongate, extending for one-half its length beyond eyes; lateral projections of posterior pronotal lobe not spatulate 8
8. Anterior pronotal projections broadly spatulate; posterior projection rather hatchet-shaped, curving anteriorly; dorsal surface lacking black spots *rettenmeyeri* n.sp.
- 8a. Anterior pronotal projections not rounded and spatulate, but bluntly truncate at distal end; posterior pronotal projection bluntly rounded, not curving anteriorly; black spots present on pronotal calli and humeral pronotal angles *arboricolus* Brailovsky

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LITERATURE CITED

- Ashlock, P. D. 1957. An investigation of the taxonomic value of the phallus in the Lygaeidae (Hemiptera-Heteroptera). *Annals of the Entomological Society of America* 50:407-426.
- Brailovsky, H. 1990. Descripcion de dos especies nuevos del genero *Epipolops* H.S. de Sudamerica (Hemiptera-Heteroptera-Lygaeidae-Bledionotinae). *Anal. Inst. Biol. Univ. Nac. Auton. Mexico Ser. Zool.* 61:125-132.
- Canter, H. M. 1964. Contribuicao ao conhecimento do genero *Epipolops* H.-Schaeffer, 1853 (Hemiptera, Lygaeidae, Geocorinae). *Papeis Avulsos do Dept de Zoologia, Secretaria da Agricultura, Sao Paulo, Brasil* 16:6:63-70.

- Hamid, A. 1975. A systematic revision of the Cyminae (Heteroptera: Lygaeidae) of the world with a discussion of the morphology, biology, phylogeny and zoogeography. Occasional Papers of the Entomological Society of Nigeria 14:1-179.
- Henry, T. J. 1997. Phylogenetic analysis of family groups within the infraorder Pentatomomorpha (Hemiptera: Heteroptera) with emphasis on the Lygaeoidea. Annals of the Entomological Society of America 90:276-301.
- Slater, J. A. (in press) The systematic position of the Pamphantinae with the description of two new tribes and a new species of *Cattarus* Stal (Hemiptera: Lygaeoidea: Geocoridae). Acta Soc. Bohem.
- Slater, J. A. and J. O'Donnell. 1995. A Catalogue of the Lygaeidae of the World (1960-1994). New York Entomological Society vii-xv + 410 pp.
- Stal, C. 1868. Hemiptera Fabriciana. Kongliga Svenska Vetenskaps-Akademien Handlingar 7(11):1-148.

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